

DESTRUCTION OF WARBLERS ON PADRE ISLAND, TEXAS, IN MAY, 1951

BY PAULINE JAMES

IN May, 1951, I had an opportunity to investigate an incident of mass destruction of migrating warblers on Padre Island on the Gulf Coast of Texas.

Padre Island, extending from Corpus Christi on the north to Port Isabel, 125 miles to the south, is one of a series of sand bars that parallels the Gulf Coast of Texas. In June, 1950, a causeway connecting Padre Island with the mainland at a point about 15 miles south of Corpus Christi was opened. The Nueces County Park was established at the north end of the island on the Gulf side. It is located on the open beach with blowing sand dunes about 100 yards inland except for a level area at the entrance to the park from the causeway. Vegetation is very sparse in the park. About two miles to the north there is some scrubby underbrush, chiefly *Quercus*. In connection with recreation facilities, ten large floodlights on high poles are spaced through the park area for use in night fishing. It was in this recreation area in the immediate vicinity of the lights, which are controlled by photoelectric devices on the mainland at Corpus Christi, that thousands of songbirds were killed on May 7, 1951.

On May 6, 1951, South Texas in general experienced unusual weather conditions. Twelve inches of rain fell at Matagorda, and eight inches of rainfall in two hours was reported at Palacios. Widespread rains were reported and small craft warnings were displayed from Brownsville to Louisiana. The cold front that brought the rains moved out into the Gulf late that day (May 6) and was followed by unseasonably low temperatures and 25 m.p.h. winds. On May 7, 1951, local showers and cold northeasterly winds were reported, changing to southeasterly by May 8.

About 8:00 p.m. on May 7, large numbers of songbirds were reported flying into street lights and buildings in Rockport, on the coast about 30 miles northeast of Corpus Christi. At approximately the same time at the Padre Island causeway office, the manager noticed several small birds flying about and around the lights. In Corpus Christi thousands of birds filled the air around lights at a baseball park. At the Corpus Christi Naval Air Station, about five or six miles north of the Nueces County Park, so many birds were said to have flown against the buildings that they piled up to a depth of more than 12 inches. (Restrictions in effect there made it impossible to verify that report.)

About 10:00 p.m. one of the deputies on duty in the recreation area of the park on Padre Island noticed flocks of small birds flying in from over

the Gulf. For the next three or four hours the park was the site of destruction for thousands of exhausted migrants as they flew into a northerly wind and cold drizzle toward the bright lights. Park officials were baffled as to what was happening, but they were concerned about the deaths of the many small birds which flew against the wires and lights. The men who were on duty gathered up as many of the live but exhausted birds as they could and put them into a building in the park to try to save them. However, thousands flew into obstructions and piled up around the light poles. Examination of the dead birds revealed that the necks of a large number of them were "burned" and broken and many showed broken beaks and crushed skulls as a result of their having flown into the wires around the lights.

On May 8, 1951, the early morning newscast carried a report of a "warbler invasion" on Padre Island and the Corpus Christi *Caller-Times* printed a note about the "wild canaries" that had invaded Padre Island during the night. As a result, a large number of Corpus Christi residents got out their bird cages and rushed over to get a free canary; others went out of interest and curiosity. The toll office of the causeway reported the largest number of week-day visitors since its opening.

On May 8, Dr. Ira N. Gabrielson, of the Wildlife Management Institute, and Mr. Luther Goldman, of the U.S. Fish and Wildlife Service, were in the coastal area of the Laguna Atascosa Refuge, approximately 125 miles to the south, and reported large numbers of warblers in the grass and shrubs, apparently resting. They did not see any dead birds there.

At Kingsville we heard the brief radio report and saw the note in the newspaper but could observe nothing unusual in the local bird life. That afternoon, two of my students and I drove the 60 miles to the Nueces County Park to check the reports and to see if we might find some specimens in suitable condition for making into study skins for class use.

Enroute we saw nothing unusual either as to species or as to abundance of birds. It was not until we crossed the causeway that we saw a few dead birds along the road under the light wires. When we entered the recreation area (about three miles beyond the causeway) about 4:00 p.m. we found dozens of birds scattered over the pavement and along the blowing sands. Literally hundreds of Magnolia Warblers in perfect plumage, brilliant Blackburnians, and Bay-breasted and Chestnut-sided and even Blue-winged and Cerulean warblers were scattered over the sands on every side of us. We stopped to examine a few of the specimens that seemed to be in fair condition and then moved on to try to determine the extent of the destruction. Although the dead birds, chiefly warblers, were scattered throughout the entire area, heaviest concentrations were in the immediate vicinity of the light poles. We counted the number of birds under one pole and found more than 900

TABLE 1
SPECIES REPRESENTATION AMONG BIRDS DESTROYED ON MAY 7, 1951,
AT PADRE ISLAND, TEXAS

Species	Number of Individuals	Per cent of total
Black-billed Cuckoo (<i>Coccyzus erythrophthalmus</i>)	1	0.04
Nighthawk (<i>Chordeiles minor</i>)	1	0.04
Acadian Flycatcher (<i>Empidonax vireescens</i>)	16	0.66
Traill's Flycatcher (<i>Empidonax traillii</i>)	9	0.37
Wood Pewees (<i>Contopus virens</i> and <i>C. richardsonii</i>)	23	0.95
Catbird (<i>Dumetella carolinensis</i>)	6	0.25
Olive-backed Thrush (<i>Hylocichla ustulata</i>)	1	0.04
Gray-cheeked Thrush (<i>Hylocichla minima</i>)	3	0.12
Veery (<i>Hylocichla fuscescens</i>)	1	0.04
Cedar Waxwing (<i>Bombycilla cedrorum</i>)	1	0.04
Red-eyed Vireo (<i>Vireo olivaceus</i>)	1	0.04
Philadelphia Vireo (<i>Vireo philadelphicus</i>)	15	0.62
Black-and-white Warbler (<i>Mniotilta varia</i>)	46	1.90
Golden-winged Warbler (<i>Vermivora chrysoptera</i>)	4	0.17
Blue-winged Warbler (<i>Vermivora pinus</i>)	1	0.04
Tennessee Warbler (<i>Vermivora peregrina</i>)	16	0.66
Parula Warbler (<i>Parula americana</i>)	1	0.04
Yellow Warbler (<i>Dendroica petechia</i>)	4	0.17
Magnolia Warbler (<i>Dendroica magnolia</i>)	1109	45.81
Black-throated Green Warbler (<i>Dendroica virens</i>)	42	1.74
Cerulean Warbler (<i>Dendroica cerulea</i>)	6	0.25
Blackburnian Warbler (<i>Dendroica fusca</i>)	64	2.64
Chestnut-sided Warbler (<i>Dendroica pensylvanica</i>)	165	6.82
Bay-breasted Warbler (<i>Dendroica castanea</i>)	221	9.13
Oven-bird (<i>Seiurus aurocapillus</i>)	84	3.47
Northern Water-thrush (<i>Seiurus noveboracensis</i>)	4	0.17
Kentucky Warbler (<i>Oporornis formosus</i>)	10	0.41
Mourning Warbler (<i>Oporornis philadelphia</i>)	1	0.04
Yellow-throat (<i>Geothlypis trichas</i>)	405	16.73
Hooded Warbler (<i>Wilsonia citrina</i>)	2	0.08
American Redstart (<i>Setophaga ruticilla</i>)	123	5.08
Orchard Oriole (<i>Icterus spurius</i>)	1	0.04
Baltimore Oriole (<i>Icterus galbula</i>)	1	0.04
Rose-breasted Grosbeak (<i>Pheucticus ludovicianus</i>)	3	0.12
Blue Grosbeak (<i>Guiraca caerulea</i>)	1	0.04
Indigo Bunting (<i>Passerina cyanea</i>)	24	0.99
Dickcissel (<i>Spiza americana</i>)	2	0.08
Lincoln's Sparrow (<i>Melospiza lincolni</i>)	3	0.12
Total number of species—39	2421	99.99

by actual count plus an estimated 100 on the pavement side of the pole where the bodies were too crushed by traffic to get an exact count. Multiply this by the ten light poles in the area and you get a conservative figure of 10,000 dead birds. It is conservative because it does not take into account the many dead and injured birds already covered by the blowing sands, those eaten by the gulls and the crabs, or the hundreds that died after being rescued. In many instances we found only one or two bright feathers left uncovered by the wind and sand; large flocks of gulls fed in the area all day.

We wanted specimens for study skins, and others for closer examination so we worked until almost dark picking up specimens at random in addition to the ones we had collected and counted from the one light pole.

We found later that we had collected over 2,400 specimens which represented 39 species (Table 1). The majority was made up of warblers (95.35 per cent) but there were also 20 other species listed. There was obviously more than one race among the Yellow-throats, and, according to Dr. Gabrielson, possibly two races of the Oven-birds and the Redstarts. At present subspecific identification of the birds has not been completed.

Of the birds rescued by Mr. David Lebby at the Park, about 100 were given to the San Antonio Zoo and of the remainder, my students and I banded and released 180 warblers of 11 species. We were careful to band only birds that were apparently healthy and unharmed by their capture.

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